



Organisational tools for SME Partnerships for Innovative Energy Services

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Content

1. Introduction.....	4
2. Categorisation of SPINs	5
2.1 SPIN types.....	5
2.2 SPIN matrix	8
2.3 Moving from one SPIN type to another	8
2.4 SPINs in more than one domain	9
2.5 Management consequences	10
2.6 Choosing the right type of SPIN.....	11
3. Phases and life-cycle of a SPIN	12
4. Organisational tools per SPIN type.....	13
5. Recommendations.....	14
6. References	14

1. Introduction

The EPC+ project aims at developing and promoting new business models for the implementation of energy efficiency services through cooperation between Small and Medium-sized Enterprises (SMEs).

Through cooperation innovative energy efficiency services (EES) can be offered. Cooperation enables SMEs to offer novel and high quality energy services which they could not provide as stand-alone companies. Such services could be serious alternatives to standard energy efficiency services provided by large energy service companies (ESCOs) and may provide promising opportunities in terms of innovation and services.

The cooperation of SMEs with the aim to offer joint EES to the market is described as a SPIN.

A SPIN (SME Partnerships for Innovative Energy Services) is an organized cluster of independent companies, mainly SMEs, that jointly supply energy efficiency services and that have a structured long-term collaboration with commonly agreed rules and objectives.

This report starts with a categorisation of different types of SPINs. This categorisation is an important insight that support the choice of the right organisational structure and most appropriate decision making rules per type. An overview of other organisational tools is given as well as their relevance per SPIN type. These tools will be tested in pilot projects in each partner country.

A comprehensive SWOT analysis of SPINs is given in task/deliverable 2.1 available on the EPC+ website.

2. Categorisation of SPINs

The concept of SPINs is an innovative idea but not yet developed in most European countries. As such there is little distributed knowledge about how to initiate, set-up and manage these clusters successfully.

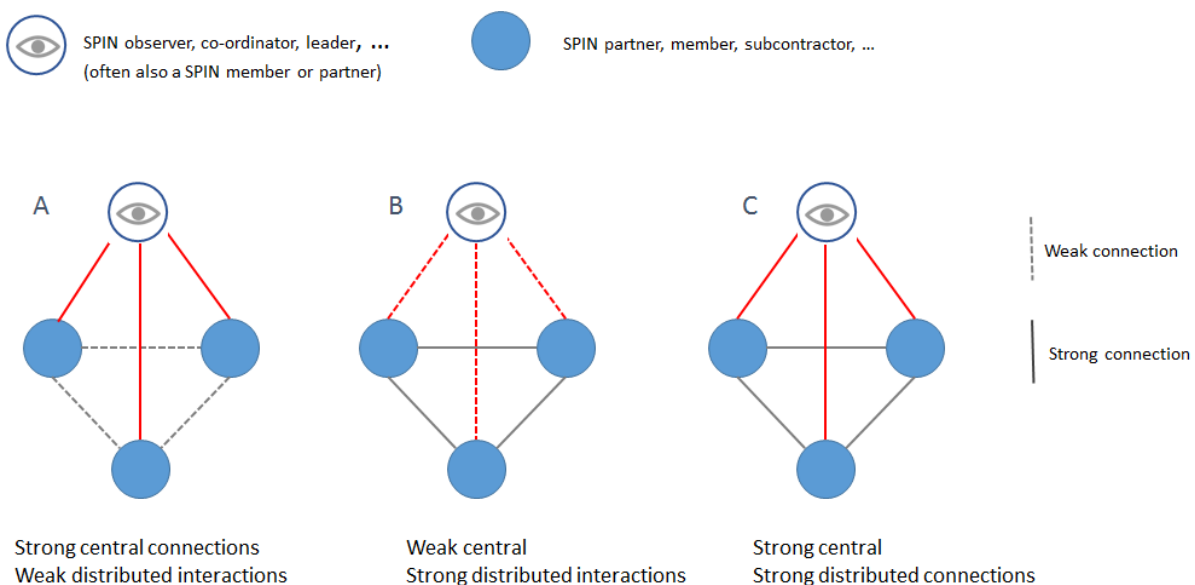
An important insight is that SPINs can have different structures and different strengths of interrelations between the parties. This insight is based on the Cynefin framework developed by Cynthia Kurtz and David Snowden.¹ A SPIN could be managed by one partner with a number of subcontractors without interactions between the subcontractors. It could be a dynamic interactive network without much control by one actor or it could be a collaborative network of SMEs with strong connections between all partners.

2.1 SPIN types

The most appropriate SPIN type in terms of interrelations and connection strengths depends on market circumstances, preferences and characteristics of the partners. As market circumstances change, as well as other factors, it is obvious that the most appropriate organisational structure can also change in the course of time.

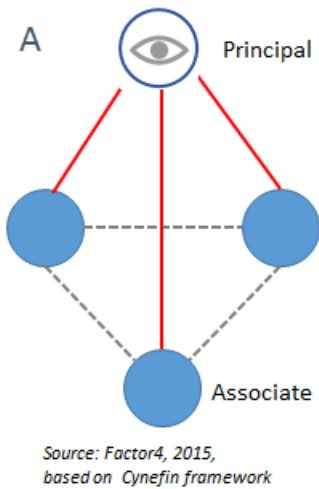
To explain the insights more in detail three SPIN types are described.

Figure 1 - Different SPIN types in terms of connection strengths



¹ See references chapter 5.

Type A - Simple SPIN



A type ‘A’ or Simple SPIN is a formal organisation with one leading partner, referred to as the “principal” and partners, referred to as the “associates”, but without (much) interactions between these associates.

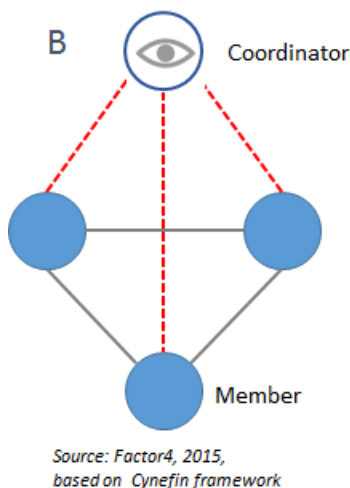
An example is an ESCO working with, often smaller, subcontractors. The number of associates depends on the expertise or domains covered by the SPIN and the total amount of work.

Marketing and sales as well as project management are executed by the principal, while associates are experts in different technical fields (e.g. heating, lighting, ...) performing specific contractual agreed tasks on behalf of the leading ESCO.

Figure 2 - Simple SPIN

Transactions between the principal and the associates are based on known and widely accepted procedures. The principal is leading and can choose the associates it prefers to work with. The contractual relationship is to a large degree determined by the principal.

Type B - Complex SPIN



A type ‘B’ or Complex SPIN is a more informal, self-organising, network of several SMEs, referred to as the “members”. One actor, referred to as the “coordinator” in the SPIN takes the initiative to facilitate and strengthen interactions in the network. This kind of organisation is a complex adaptive structure.

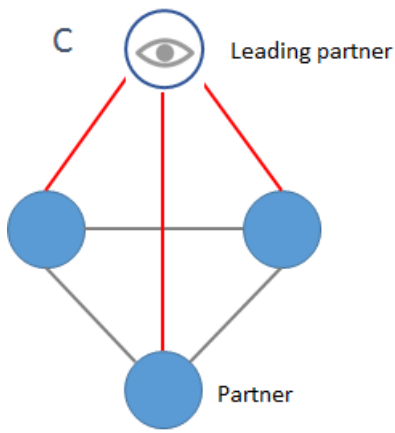
The coordinator could be an energy service provider and one of the members of the SPIN but also an organisation that only takes the role of coordinator and facilitator. (e.g. a public authority or research institute that support SMEs in the set-up of Simple or Complicated SPINs without being part of these SPINs).

Figure 3 - Complex SPIN

Outcomes are the result of dynamic emergent patterns of interaction between all partners willing to exchange knowledge and share (future) business opportunities but the exact outcomes of the interactions are not known beforehand. The contractual relationship is often limited and could be a commonly agreed network contract between the coordinator and the members.

One or more, competing or non-competing, Simple or Complicated SPINs can be part of a Complex SPIN.

Type C – Complicated SPIN



Source: Factor4, 2015, based on Cynefin framework

A type ‘C’ or Complicated SPIN is a formal collaborative network of SMEs with strong connection strengths between all parties, referred to as “partners”, and a collective central control. Responsibilities and tasks are split and allocated to the different partners in the SPIN. A more leading role could be assigned to one partner, referred to as “leading partner”. The decision making process and how transactions are executed have to be defined before the creation of the SPIN. Complicated SPINs are difficult to create because of the large number of aspects to agree on between all partners. Collaboration can be based on a contract between all partners or integrated in a new legal entity (e.g. a joint venture). Simple SPINs, represented by their principals, can be partners in a Complicated SPIN.

Figure 4 - Complicated SPIN

Overview of SPIN partners and their role

SPIN Type	Name of actor	Description of role
Simple	Principal	<ul style="list-style-type: none"> Leading the SPIN, provide a wider range of services to the market. Responsible for sales, client relationship management, operational supervision.
	Associate	<ul style="list-style-type: none"> Subcontractor of the principal. Provide a specific service.
Complex	Coordinator	<ul style="list-style-type: none"> Stimulate interaction between members. Enable common actions (e.g. promotion of EPC concept). Coordinate the SPIN. Could be an external facilitator to support the development of Simple or Complicated SPINs
	Member	<ul style="list-style-type: none"> Participate in the interactions. Buyer or/and provider of tools from/to other members. Collaborate with one or more other members to develop new SPINs.
Complicated	Leading Partner	<ul style="list-style-type: none"> Execute a more leading role as agreed by partners.
	Partner	<ul style="list-style-type: none"> Execute specific tasks as agreed in a SPIN agreement.

2.2 SPIN matrix

The different SPIN types can also be presented in a matrix with four domains as shown in fig. 5.

Figure 5: Overview of different domains in terms of control and distributed interaction.

	Weak	Central control	Strong
Strong	<p>Swarmware tools</p> <p>Complex SPIN</p>	<p>Complicated SPIN</p>	
Distributed interactions	<p>Chaotic Domain</p>		<p>Simple SPIN</p>
Weak			<p>Clockware tools</p>

Source: Factor4, 2015, based on Cynefin model

The Chaotic domain refers to a situation with low interactions and no control. From an observer’s point of view it is not clear what is going on. Although a SPIN could go through a period of chaos during its life cycle the objective should be to establish a SPIN in one of the other domains.

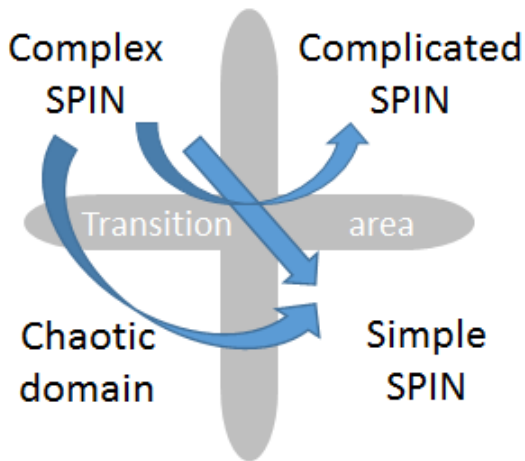
Important is the recognition that some situations ask for a transition shift and that a transition shift will ask for a different management approach. An important phase in the lifecycle of a SPIN is the potential transition from one type of a SPIN to another.

2.3 Moving from one SPIN type to another

When a market starts to take-up EPC services a Complex SPINs could become one or more Complicated SPINs or/and Simple SPINs. This could be the outcome of a managed process but also of a more disordered process.

The transition phase is a moment that could be used by early adopters to move faster than others to create new partnerships that will strengthen their competitive advantage versus other service suppliers (e.g. large ESCOs) or versus previous partners in the Complex SPIN.

Figure 7 – Moving from one domain to another

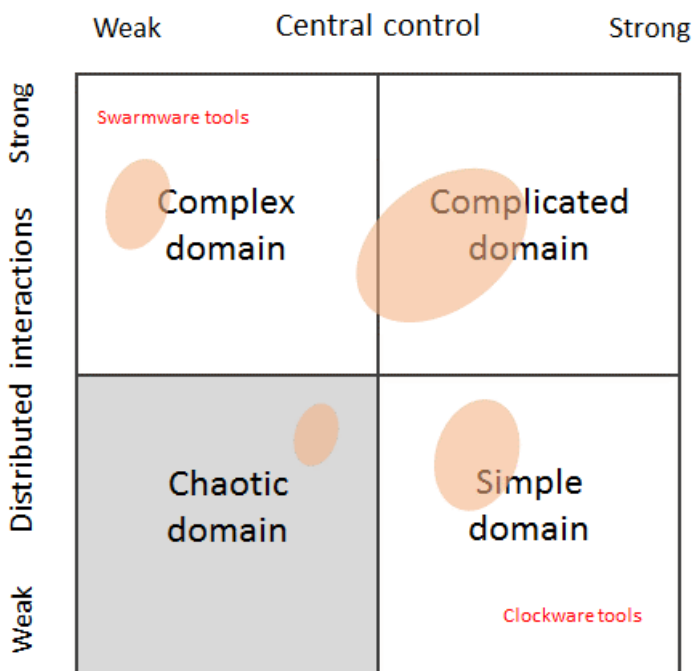


Source: Factor4, 2015, based on Cynefin framework

2.4 SPINs in more than one domain

A certain SPIN type can be dominant or a SPIN can be situated in more than one domain.

Figure 6 – Example of a SPIN situated in different domains at some point of time.



Source: Factor4, 2015, based on Cynefin model

An organisation such as a SPIN can be a conglomeration of parts situated in different domains.

The EPC+ consortium itself is an example of a SPIN mainly situated in the complicated domain but also with parts situated in the other domains.

2.5 Management consequences

Each dominant type of SPIN asks for a different approach and set of management supporting tools. This is also the case per domain for SPINs in more than one domain.

Simple SPIN

The management focus in a Simple SPIN is on efficiency as effectiveness should already be known. The decision model is to investigate the market and to develop the capacity to respond to it. Structured and known approaches and techniques are used in this type of SPIN. Clockware tools are the recommended tools used in Simple SPINs.

The principal should have a good situational awareness of its own organisation and market (total market potential, potential clients, competitors, role of public policy, ...). The Business Model Canvas is one of the tools that could be used to indicate the different internal and external aspects that should be taken into account in the development and management of a Simple SPIN. The Business Model Canvas is a strategic management and template for developing new or documenting existing business models. It is a visual chart with elements describing a firm's or product's value proposition, infrastructure, customers, and finances. It assists firms in aligning their activities by illustrating potential trade-offs.

Complex SPIN

The approach in a Complex SPIN is strongly different from the two other types. The management focus in this type is on innovation and effectiveness. The degree of freedom in this SPIN is much higher than in the other two types. Participants will only join and contribute to successful outcomes if they have an expectation that interactions in the SPIN will be effective sooner or later. The coordinating partner(s) should not try to control processes as this would go at the expense of dynamic interactions in the SPIN. Instead the coordinating partner(s) should initiate, enable and strengthen interactions between partners. The coordinating partners(s) should monitor patterns such as emergent order. All partners should try to detect promising outcomes for themselves or for the SPIN as a whole. Swarmware tools are used in a Complex SPIN.

A supporting tool for facilitators of Complex SPINs is Systems Dynamics Modelling. This is a perspective and set of conceptual tools that enables users to better understand the structure and dynamics of complex systems. One of its key strengths lies in the eliciting of mental models of the various actors and participants in the system and integrating them to form a more accurate understanding of the complete system. All partners in a Complex SPIN should try to have a very good situational awareness of the own organisation and the market.

Complicated SPIN

The Business Model Canvas mentioned above is also a good supporting tool to support the design and management of a Complicated SPIN. The initial focus of a Complicated SPIN is the integration of the different parties and expertise into the SPIN.

As the SPIN will act as a whole the behaviour and service quality of each of the partners will determine the success. The parties have to agree on the allocation of tasks and how costs, risks and benefits will be shared.

To enable the creation of this kind of SPIN it is best to limit the number of participating SMEs to two or three and to look for SMEs with complementary skills and/or market coverage. The situational awareness of the own organisation and market should be distributed.

2.6 Choosing the right type of SPIN

Choosing the right type of SPIN will largely define its success. An important factor in the choice of type of SPIN is the level of uptake of EPC in the market on the one hand and the competitive situation of SMEs providing EPC services on the other hand.

Simple SPIN

A Simple SPIN organisation is appropriate under the following circumstances:

- A market for EPC services or a market uptake of the EPC concept expected in the short term (6 months to one year);
- The principal (with its associates) should already have a market share or be able to acquire a market in the short term;
- The associates should accept the central role of the principal;
- The associates should not have the ambition and capabilities to become competitors of the principal.

Without business (in the short term) it is obvious that associates will not be interested to join a Simple SPIN or that they will lose their interest after some time.

Complex SPIN

A Complex SPIN organisation is appropriate under the following circumstances:

- Pre-market situation where the EPC concept is not well known or used;
- An expectation that the EPC-concept will be taken up by the market in the medium term (2 to 3 years);
- The expectation that the Complex SPIN can have an impact on the market growth (via lobbying and/or marketing) and/or on the future competitive position of the SPIN partners in this market.

A Complex SPIN is also appropriate to promote and facilitate innovation between SMEs and/or as a platform to support business transactions between non-competing partners.

Complicated SPIN

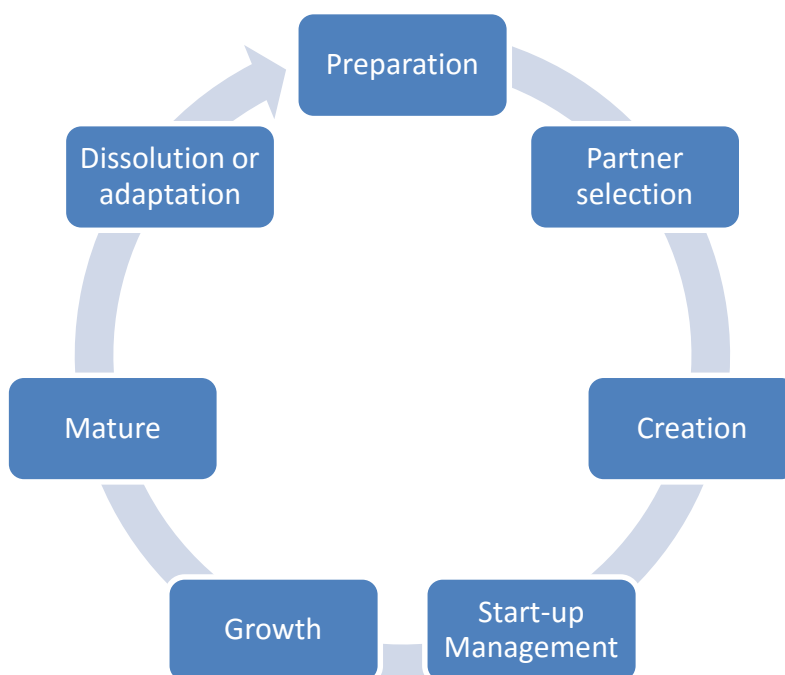
A Complicated SPIN organisation is appropriate under the following circumstances:

- A market for EPC services or uptake of the EPC concept expected in the short term (6 months to one year);
- Competitors (other SMEs ESCOs and/or large ESCOs) are present in the market;
- Partners in the Complicated SPIN see a need to strengthen their competitive position by working together;
- Partners are complementary in terms of knowledge, resources or/and market focus;
- Partners in the Complicated SPIN are willing to share costs, risks and benefits.

3. Phases and life-cycle of a SPIN

To set-up a SPIN some preparation should be done. This includes an initial market analysis and decision making process on the most appropriate type of SPIN. The type of SPIN will also have a strong impact on the partner selection, creation and management of the SPIN.

Figure 8 - Overview of phases



4. Organisational tools per SPIN type

The organisational tools needed to enable the creation and proper functioning of a SPIN depend on the (dominant) type of SPIN and phase.

Organisational tools are listed below as well as their expected importance per SPIN type.

Organisational tools	SPINs		
	Simple	Complex	Complicated
Business Model Canvas	*****	**	*****
Insight in different SPIN types	*****	*****	*****
Market analysis	*****	*****	*****
Business Plan	*****	*	*****
Deontological code	**	***	*****
Digital platform for data and info	*****	*****	*****
Contract	*****	****	*****
- Objectives	*****	*****	*****
- Admission and drop-out rules	**	***	*****
- Allocation of tasks	*****	*	*****
- Risks sharing	**	*	*****
- Cost sharing	**	***	*****
- Benefit sharing	*	***	*****
- Service level agreement	*****	*	*****
- IP rights	*****	**	*****

Degree of importance for SPIN: (*) No or very limited importance to (*****) very important.

5. Recommendations

The insights of the Cynefin framework and their application to SPIN organisations are a powerful instrument to create the correct SPIN type and to coordinate or manage a SPIN. Most people need some time before they fully understand the framework. To take the framework into considerations each time when management decision have to be made about the organisation and management of relationships, will help to grasp the concept and its value for SPINs. This is also a recommended approach when things are not going as expected at some point in time and additional actions or a change in management decisions are considered.

As explained before a SPIN can be situated in more than one domain but this is not a preferred situation as it makes things complicated. It is recommended to start a SPIN with the characteristics of one specific domain.

6. References

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